

IN THE CLAIMS:

- 1-6 (canceled)
- 7. (currently amended) In a method for the non-vacuum electron-beam welding of metallic materials, the improvement being in using a protective gas consisting of a ~~cold~~ gas having a temperature less than ambient temperature.
- 8. (previously presented) The method of claim 7, characterized in that the metallic materials are light metals.
- 9. (currently amended) The method of claim 7, characterized in that the ~~cold~~ gas is an inert gas.
- 10. (currently amended) The method of claim 7, characterized in that the ~~cold~~ gas is a low-reactivity gas.
- 11. (new) The method of claim 10, characterized in that the gas is nitrogen.
- 12. (new) The method of claim 9, characterized in that the gas is helium.